SARL news Sunday 04 May 2014, good morning and welcome, you are tuned to ZS6SRL the official voice of the South African Radio League. The SARL broadcasts a weekly news bulletin every Sunday morning at 08:15 SAST in Afrikaans and at 08:30 SAST in English.

You may download a audio version of this buletin by following the link on the front page of the SARL website, www.sarl.org.za and while you are on the site you may also obtain a printed version of this from the site. You may also sign up to receive future bulletins via e mail.

Echolink listeners may connect to ZS0JPL for a streaming version.

This bulletin is read by (name, call sign and QTH where applicable)

News Headlines

New technique makes super capacitors more affordable

Parys repeater back online

and

Time is running out for S.A.R.L. and AMSAT SA special offers

This weeks leading Story Scientists at George Washington University have devised a new technique to manufacture super capacitors at a fraction of the current cost.

The research team made the new ultracapacitor out of graphene flakes and single-walled carbon nanotubes by using a special tecnique involving a high voltage arc. They then combined graphene flakes and carbon nanotubes, spread them on paper, and rolled them into a new light-weight, high-performance, low cost ultracapacitor.

Ultracapacitors sometimes called Supercapacitors are generic terms for a family of new electrochemical capacitors. These devices don't have a conventional solid dielectric. Rather the capacitance value is determined by two storage principles, which both contribute to the devices total capacitance.

The significance of this new ultracapacitor is its light weight and low cost making it useful in a variety of tasks from acting as a source of voltage to maintain static memory to larger jobs such as being part of the power system in electric cars.

An in depth abstract on this research report is available from the Journal of Applied Physics at tinyurl.com/low-cost- ultracapacitor.

Local News

From Facebook Gary Immelman, ZS6YI, reports that they, being the Sasolburg Amateur Radio club have a repeater running in Parys on a frequency of 145,687 5 MHz with an 88,5 Hz tone. Due to various cable thefts the repeater has been offline but now it is back up and running.

The repeater is located in town so the coverage is not very wide but can be accessed from Three Rivers, Vanderbijlpark and Sasolburg. The highway running past Parys and areas of Klerksdorp and Potchefstroom may also be able to work into the repeater.

If you are driving past the area please give a shout and I m sure Ian or Dirk will be around to keep you company.

News from the league And we start with a special offer: If you are not a member of the SARL, join now and get May and June on the house by paying the 2014/2015 membership fee of R430 for ordinary membership. Membership include access to the online Radio ZS, the QSL bureau and access to two SARL licensed 5 MHz frequencies plus many on the air activities, discounts on the purchase of kits, booking for RTA and other events. Add a subscription for a printed copy of Radio ZS for only R150. Complete the subscription form online today or download the application form by pointing your browser to www.sarl.org.za/public/membership/join.asp . Membership is subject to approval by the SARL Council. Details of other classes of membership can be found on the SARL web.

It is possible to pay membership in four installments provided the final amount is paid by 31 August 2014. At the 2014/2015 membership rate it will be four payments of R110 for ordinary members and four payments of R60 for senior members. A subscription to a printed copy of Radio ZS is R150 and must be paid upfront in one amount. For assistance with application and payment, please contact Mariska at 011 675 2393. When you are making a payment to the SARL always include your callsign, and if possible your name.

Applications for membership of the SARL have been received from the following persons or clubs: Koji Tahara, ZR6NX (Japanese Diplomat); Abe Zwiegelaar, ZS1ZS; Namaqualand Aero Sport Association, ZS3FLY; Kevin McDonald, ZS6KMD; and Gerhard Brits, ZSL1099.

Any objections against the acceptance of the applications must reach the Secretary before or on the Tuesday after this bulletin.

SA AMSAT Space simposium And yet another special offer, discounted rates are available to SARL and SA AMSAT members who book for the SA AMSAT Space Symposium by 5 May. SARL members pay 50% less than non-members. The early bird rate is R150 which includes a copy of the papers on DVD. The symposium will be held at the Innovation Hub in Pretoria which is situated opposite the CSIR with a quick access via the Lynwood off ramp on the N1.

The date is 24 May. Some of the highlights include a demonstration of the KLETSkous hardware, presentations on FunCube, DynaCube and an innovative propulsion system that can be used to alter the obit of a CubeSat once launched in Space. For smartphone users apps to predict satellites passes and telemetry downloads will be demonstrated. The full programme is available on www.amsatsa.org.za Get with it now.

Competition News

The ZS3 Sprint will take place this afternoon from 16:00 to 17:00 SAST on the 40 Metre band. The exchange will be a RS/T and provincial or country abbreviation.

Contacts with stations in ZS3 are worth 2 points. Contacts with stations in own or other ZS call areas, excluding ZS3, or Southern African countries are worth 1 point. Contacts with the Northern Cape Amateur Radio Club, ZS3NC, Namaqualand Aero Sport Association, ZS3FLY, Sutherland Amateur Radio Club, ZS3OBS and Kalahari Karoo ARC, ZS3ARK or any other ZS3 club station is worth 5 points each, only one contact per station is allowed.

Log sheets must be submitted within 7 days after the contest and can be sent by e-mail to zs3nc@qsl.net. The closing date for log submissions is 12 May 2014.

SARL members are invited to take part in a 5MHz activity weekend dedicated to propagation research. The activity is focused from 13:00 - 20:00 on each day and comprises various activities during designated time slots. The activity is open to all SARL members and to all radio amateurs living permanently outside the borders of South Africa.

The activity is devised into two segments, a serious segment for the first 30 minutes of the hour which comprises of listening to and logging the beacon signals on 5250 kHz using WSPR, PSK31 and CW and during the second half hour a fun component making as many contacts as possible on 5260 kHz.

Participants who send in logs take part in lucky draws for a free membership of the SARL for 2014/2015 and attractive book prizes. Even a photograph of you operating can win you a boo, as long as the picture sent in is high resolution.

Full details of the activity weekend and the tutorial on how to get started on WSPR are available on www.sarl.org.za, select the propagation research button on the left side of the home page or send an email to propresdearch@sarl,org.za and the details will be mailed to you. Hamnet Western Cape will be hosting a national Hamnet exercise this winter. As before, there is a competitive feel to the exercise, but primarily it is an exercise and not a contest. Our aims are: to . test our readiness for both fixed stations and field deployments; practice our emcomm voice procedures and practice accurate message passing.

The exercise will run for 24 hours from 12:00 Saturday 7 June to 12:00 local time (CAT) Sunday 8 June.

Teams of between one and four members may enter and must provide a list of their members, a tactical name for their team for example a typically deployment location name and the co-ordinates they will be based at, to the exercise co-ordinator in advance of the exercise. The leader of the team and at least half the team members must be Hamnet members. Only teams that have entered and have been approved may participate in the exercise. Closing date to register

your team is 30 April 2014 and your list of team members must be finalised two weeks before the exercise.

If you participated last year, you are encouraged to pick a different location to add some variety and new challenges. Teams entering earlier are more likely to get their chosen locations. Teams entering later, that are too close to other teams already entered, will be asked to move further away. The exercise co-ordinators (ZS1ASH & ZS1GS) will have the final say on whether your location is approved for the exercise.

The rules and guidelines will be distributed in due course. Information about the other participating teams and the details of messages to be passed between teams will be sent out two to three days before the exercise.

Team entries must be sent to Ashley, ZS1ASH before 9 May 2014. Emails addresses are given in the online version of SARLNEWS.

You are tuned to a news bulletin of the South African Radio League and we now look at the HF -Propagation report

Hannes Coetzee, ZS6BZP, reports that the expected solar activity will be at moderate levels. Sunspots AR2047 and AR2049 have "beta-gamma" magnetic fields that harbors enough energy for M-class solar flares. If you want to do your own frequency predictions, the expected effective sunspot number for the week will be around 82. All the bands from 20 to 10 m will provide lots of DX fun with 20 m providing the best openings with 15 m not far behind. Please visit the website spaceweather.sansa.org.za for further information.

Dairy of events The ZS3 Sprint will take place this afternoon from 16:00 to 17:00 SAST on the 40 Metre band. Log sheets must be submitted within 7 days after the contest and can be sent by e-mail to zs3nc@qsl.net 17&18 May SARL members are invited to take part in a 5MHz activity weekend dedicated to propagation research Also on the 17th of May the East Rand Radio club will be hosting their monthly meeting to welcome new members after the RAE And 25 May the SARL digital contest You can get more information on these and other happenings on the SARL website www.sarl.org.za

And we end this weeks newscast with a lookback at our top story: Scientists at George Washington University have devised a new technique to manufacture super capacitors at a fraction of the current cost.

That brings us to the end of this newscast: The SARL invites you to listen to Amateur Radio Today every Sunday morning at 10:00 local time on 145,750 MHz in the Pretoria area, and on the 145,650 network in Johannesburg with relays on 7 082, 7 205, and 17 660 kHz. There is also a podcast by ZS6RO. For a web-stream and Echolink by ZS6FCS, visit www.sarl.org.za, click on 'Amateur Radio Today', go down the green column and click on 'LISTEN ON THE WEB'. A repeat transmission can be heard on Mondays at 16:30 UTC on 3 230kHz. The website also lists various other retransmissions. Reception reports, comments

and suggestions are invited. Send an email to artoday@sarl.org.za. Sentech sponsors the transmissions on the non-amateur frequencies.

SARL News invites clubs and individuals to submit news items of interest to radio amateurs and short-wave listeners. Submit news items - if possible in both English and Afrikaans to www.sarl.org.za/newsinbox.asp, not later than the Thursday preceding the bulletin date.

You have listened to a bulletin of the South African Radio League compiled and edited by Dawie Conradie ZR6DHC

Thank you for listening, 73.

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